

REMARKS

I. Introduction

This Amendment accompanies a Request for Continued Examination (RCE).

II. Claim Rejections - 35 U.S.C. § 112, First Paragraph

Claim 36 stands rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. The Examiner contends that the text "said biodegradable oxidized cellulose ester having an acid number of at least 133" is not supported in the original specification. In this regard, the Examiner argues that the conversion of the acid number in Example 1 is insufficient documentation to support claim 36 on the basis the instant specification does not disclose the carboxylic acid content of the resulting compound thereof and does not set forth the acid number of the resulting compound.

In its February 28, 2007 decision, the Board of Patent Appeals and Interferences affirmed the Examiner's rejection on the basis that Applicant did not provide sufficient evidence to establish that one of ordinary skill in the art would have understood that the resulting compound of Example 1 would inherently have the carboxylic acid content and acid number appellants attribute to it. While the Board agreed that a specification can be amended to recite inherent properties of a chemical compound disclosed therein, it concluded that Applicant required further evidence to support its position, "that the resulting compound of example 1 necessarily, inherently has a carboxylic acid content of 10.57% and evidence that the carboxylic acid content of 10.57% directly converts to an acid number of 133.9." (Board's 2/28/07 Decision, p. 4). The Board further noted that such evidence could be made in the form of a Declaration under 37 C.F.R. § 1.132. (Board's 2/28/07 Decision, p. 4).

Accordingly, Applicant has attached the Second Supplemental Section 132 Declaration of co-inventor, Dr. Vijay Kumar. Dr. Kumar confirms that the resulting compound of Example 1 inherently has a carboxylic acid content of 10.57%, and that the carboxylic acid content of 10.57% directly converts to an acid number of 133.9. (Declaration Dr. Vijay Kumar, para. 3). In this regard, Dr. Kumar notes that acid number is the mass of potassium hydroxide (KOH) in milligrams that is required to neutralize one gram of chemical substance, here oxidized cellulose (OC). (Decl. V. Kumar, para. 5). The acid number is a measure of the amount of carboxylic acid

groups in a chemical compound. (Decl. V. Kumar, para. 5). In a typical procedure, a known amount of sample dissolved in organic solvent is titrated with a solution of potassium hydroxide with known concentration and with phenolphthalein as a color indicator. (Decl. V. Kumar, para. 5).

Dr. Kumar further states that once the carboxylic content of a particular compound is known, the acid number may be easily calculated by first dividing the number of grams of carboxylic acid per 100 grams of compound by the molecular weight of the carboxylic acid group (45). (Decl. V. Kumar, para. 6). This quotient is then multiplied by the molecular weight of KOH (57), the product is then multiplied by 1000, then divided by 100 (g). (Decl. V. Kumar, para. 6).

As set forth in Example 1 of the application, the carboxylic content of OC is approximately 14% (Decl. V. Kumar, para. 7). As determined by titration, the resulting oxidized cellulose acetate produced in this example had a carboxylic content of 10.57%. (Decl. V. Kumar, para. 7). Thus, in accordance with the formula described in paragraph 6 of Dr. Kumar's declaration, the acid number of the compound is 133.9, as follows:

$$\{[10.57 \text{ (g)}/45] * 57\} * 1000/100 \text{ (g)} = 133.9$$

(Decl. V. Kumar, para. 8).

For all of these reasons, the application, as filed, demonstrates that the compound synthesized in Example 1 inherently has a carboxylic acid content of 10.57%, and that this carboxylic content of 10.57% directly converts to an acid number of 133.9. (Decl. V. Kumar, para. 9). Applicant therefore respectfully requests that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

Based on the conclusions reached in Dr. Kumar's declaration, Applicant has also amended the specification to recite the inherent properties of the chemical compound disclosed therein, as suggested by the Board. As such properties of the compound are inherent, as confirmed by Dr. Kumar, such amendment does not constitute new matter.

III. Conclusion

It is believed the application is in condition for allowance. Allowance is therefore respectfully requested.

This Amendment accompanies a Request for Continued Examination (RCE). No other fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Respectfully submitted,



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Enclosure: Second Supplemental Rule 132 Declaration of Dr. Vijay Kumar